

**Amendments in the specification:**

1) Please replace the paragraph beginning on line 8 of page 37 with the following paragraph:

When beam **106** of incident light **58** is focused and light **58** is incident from side **a**,  $\phi_R$  for thick substrate **104** is given by:

$$\phi_R = \frac{4\pi n t_s \cos \theta_2}{\lambda} \quad \text{Eq. 34}$$

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$$\phi_R = \frac{4\pi t_s \cos \theta_1}{\lambda} \quad \text{Eq. 34}$$

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In this case phase  $\phi_R$  is independent of the refractive index. Hence, one can fit equations 31 and 34 by simply adjusting  $a_1^2$ ,  $a_2^2$  and  $t_s$ . One can also use equation 33 to calculate  $t_s$ , with  $n_1=n_2=1.0$ . Graphs of normalized reflectances for incident light **58** being illuminated from side **a** and area fractions  $a_2$  ranging from 0% to 40% as above are shown in Fig. 8. Note that incident light **58** is focused on front side **a** in this case.

2) Please replace the paragraph beginning on line 8 of page 40 with the following paragraph:

Apparatus **180** takes advantage of the fact that refractive, catadioptric or purely reflective optics can be used to guide incident light **192** and response light **196 (198)**. In fact, purely reflective optics are advantageous when incident

wavelength range  $\Delta\lambda$  is large, e.g., when it extends from 190 nm to 1000 nm. In the present embodiment  $\Delta\lambda$  is large and thus apparatus **180** employs a set of reflective optics **200**, **202** in the form of curved mirrors. Mirror **200** directs incident light **192** to sample **186**. Mirror **202** receives response light **196** from sample **186** and directs it to detector **194**. In a preferred version of apparatus **180** mirrors **200**, **202** are toroidal ~~toroidal~~ mirrors. For general information about the use of toroidal ~~toroidal~~ mirrors the reader is referred to U.S. Pat. No. 5,991,022.

3) Please replace the paragraph beginning on line 10 of page 20 with the following paragraph:

The choice of range  $\Delta\lambda$  of incident light **14** is such that substrate **16** is semi-transparent or even ~~event~~ transparent at any particular wavelength, e.g., at  $\lambda_i$ , within range  $\Delta\lambda$ . Therefore, at a particular wavelength, e.g., at  $\lambda_i$ , response light **24**, **28** undergoes multiple internal reflections and transmissions before emerging from substrate **16**.